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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/517,318	03/09/2005	Kinshiro Naito	P26399	6724
7055 7590 04/04/2008 GREENBLUM & BERNSTEIN, P.L.C. 1950 ROLAND CLARKE PLACE RESTON, VA 20191				
EXAMINER LUK, EMMANUEL S				
ART UNIT		PAPER NUMBER		
1791				
NOTIFICATION DATE		DELIVERY MODE		
04/04/2008		ELECTRONIC		

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

gbpatent@gbpatent.com
pto@gbpatent.com

Office Action Summary

Application No.

10/517,318

Applicant(s)

NAITO ET AL.

Examiner

Emmanuel S. Luk

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 December 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-4 and 6-17 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-4 and 6-17 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-8508)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

3. Claims 4, 13-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Keyes (3710666) in view of Bezama (5907985) and Lorenz (3580041).

Keyes teaches the die body 25 with die hole 26, lower portion of the die hole forming a discharge hole 13, 27, annular peripheral groove 28 and injection port 30, the cross-sectional area of the injection port is smaller than the peripheral groove, see Fig. 2, 4, and the die holder can be 11, 41.

Keyes fails to teach an outer piece fitted into the through hole or hole-forming tool that is formed on the inner peripheral surface of the die body, or seal, and a separate core.

Bezama teaches a die body 38 that is the support bushing having a through and discharge hole 36, and piece having the discharge hole/air injection hold 10, that is fitted within the die body. Bezama also teaches in Figure 2, a prior art where there is a die body 38 and a core 23, the upper and lower portion formed by the die body and core at interfaces 25 and 41 acts as a seal to prevent flow to pass through.

Lorenz teaches the use of seals 56, 62, 64 positioned in recesses in a punch assembly for providing a sealing arrangement. It would have been obvious for one of ordinary skill in the art to add additional seal members at interfaces such as the ones taught by Lorenze for an improved seal.

It would have been obvious for one of ordinary skill in the art to modify Keyes with the die body configuration including a die body and core located within as taught by Bezama because it allows a better seal (c. 3, l. 18-20) via the upper and lower contact portions and seals as taught by Lorenze for forming a seal.

4. Claims 1-3, and 9-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Keyes (3710666) in view of Bezama (5907985).

Keyes teaches the die body 25 with die hole 26, lower portion of the die hole forming a discharge hole 13, 27, annular peripheral groove 28 and injection port 30, the cross-sectional area of the injection port is smaller than the peripheral groove, see Fig. 2, 4, and the die holder can be 11, 41.

Keyes fails to teach an outer piece fitted into the through hole or hole-forming tool that is formed on the inner peripheral surface of the die body, or seal, and a separate core.

Bezama teaches a die body 38 that is the support bushing having a through and discharge hole 36, and piece having the discharge hole/air injection hold 10, that is fitted within the die body. Bezama also teaches in Figure 2, a prior art where there is a die body 38 and a core 23, the upper and lower portion formed by the die body and core at interfaces 25 and 41 acts as a seal to prevent flow to pass through.

It would have been obvious for one of ordinary skill in the art to modify Keyes with the die body configuration including a die body and core located within as taught by Bezama because it allows a better seal (c. 3, l. 18-20) via the upper and lower contact portions.

5. Claims 1-3 and 6-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over JP 2000-051966 in view of Andrusch (5111723).

JP '966 teaches the die body 6, die holder 8, negative pressure generator via the downwardly facing inflow ports 3, the die holder having the fluid supply hole 9, 13. The die body 8, 10, 11, a core within the body 6 that is within the die body and having a discharge hole, core having a plurality of fluid injection ports 3 that are obliquely injecting fluid downward, the die body providing an inflow port 13 with an outer peripheral groove 9.

As seen in the figures, the through hole and the discharge hole are all tapered. It would have been obvious to one of ordinary skill in the art to recognize the elements of 8, 10, and 11 can be considered as a single element of the die body.

JP fails to teach a die body with core.

Andrusch teaches a die body 38 that is the support bushing having a through and discharge hole 36, and core having the discharge hole/air injection hold 42, that is fitted within the die body. In addition, the upper and lower portion formed by the die body and core at interfaces 25 and 41 acts as a seal to prevent flow to pass through.

The inflow port taught by JP and Andrusch has the air flow moved accordingly and in the case of JP reference, the flow moves to a positioned that is above the outlet of the fluid injection ports, therefore it is obvious to one skilled in the art that the

It would have been obvious for one of ordinary skill in the art to modify JP with including a die body and core located within as taught by Andrusch because it allows a better seal (c. 3, l. 18-20) via the upper and lower contact portions. In regards to the material made from resin, this is a common material used for forming elements and it would have been obvious for one of ordinary skill in the art to construct the element from resin.

In regards to the inclined angles, JP '966 teaches an inclined angle that is oblique. It would have been obvious to one skilled in the art that the various angles through routine experimentation for optimum results.

Response to Arguments

6. Applicant's arguments with respect to claims 1-4 and 6-17 have been considered but are not persuasive. In regards to the separate cores, both the Bezama and Andrusch references teaches a separate core from the die body and it shows that it is known in the art to make separate elements of the die body and core from the JP and Keyes reference. In regards to the inflow port and fluid injection port, both the JP and Keyes reference show this with the air being moved obliquely downwardly, in fact the Keyes reference also shows the inflow port being above the outlet of the fluid injection ports. The arguments concerning the use of a recess with seal member is noted, however it is well known in the art to use such recesses to accommodate a seal ring which is known for creating a tight fit relationship between the elements and providing an improved seal.

Conclusion

7. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any

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extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Emmanuel S. Luk whose telephone number is (571)272-1134. The examiner can normally be reached on Monday-Fridays from 9 to 5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Yogendra N. Gupta can be reached on (571) 272-1316. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Yogendra N Gupta/
Supervisory Patent Examiner, Art Unit 1791

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